

# ArcelorMittal Indiana Harbor CWTP Outfall 001 Mitigation Measures, Corrective Measures and Third Party Oil Source Investigations

## January to July 2017

EVENT	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17
OUTFALL ISSUE IDENTIFIED	January 10: oil sheen at outfall noted						
MITIGATION MEASURES	January 12: National contracted to replace booms and clean outfall as needed						
	ArcelorMittal employees conduct daily inspections of outfall 001 with daily reports sent to EPA, Coast Guard and IDEM						
				Divers inspect outfall and sewer at 001 discharge structure; Discharge structure inside steel weir found to have concrete bottom, no oily sediment found inside weir or up the 84" sewer for a distance of 100 feet.			
		K & M contracted to remove oil from south sewer cooling water sewer (weekly)					
CORRECTIVE MEASURES CENTRAL WASTEWATER TREATMENT PLANT		Investigation on upgrade of CTP clarifiers begins	K & M installs soft booms installed in clarifiers and commences skimming oil off the clarifiers	Clarifier oil skimming activities continue; booms replaced as necessary (K & M)			
			Oil skimmings collected from clarifiers redirected from front of plant to oil concentration, piping completed	#1 Clarifier taken down to rebuild launderers, check rake drive, clean bottom and repair oil skimmer boasrd.	Launderer work and oil skimmer board repair work on #1 and #2 clarifier completed	Jun 1st went to 2 clarifier operation. Iron guard treatment started June 7th. Oil heater bundle and level transmitter for oil tank installed June 23rd.	July 3rd started pumping skimmed oil to oil concentration tank.
CORRECTIVE MEASURES OUTFALL 001			K & M skimming oil and replacing boom inside the weir at Outfall 001 (8 hr shifts, 5 days/wk)		K & M oil skimming and boom replacement frequency increases (8 hr shifts, 7 days/wk)	K & M Oil skimming and boom replacement frequency increases (10 hr shifts, 7 days/wk)	
						K & M installation of oil absorbant mats on the surface of the Outfall 001 discharge inside the weir (daily)	
OUTFALL 001 OIL SOURCE INVESTIGATION (THIRD PARTY)				Late April: Developed draft oil source investigation work/sampling plan	May 15 & 17: Samples collected for chemical and biomarker fingerprinting characterization (NewFields)	June 23: NewFields sampling results and report issued to Amendola Engineering June 27: Amendola Engineering and NewFields Oil Sheen Sampling Study Report issued to U.S. EPA	